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(54) **Error concealment in a video decoder**

(57) The error concealment technique disclosed herein relates to the use of existing information by the decoder to conceal bitstream errors regardless of what the encoder does. Examples of existing information include, for example, the previous reference frame, macroblock information for the previous reference frames, etc. Another aspect of the system described herein re-

lates to the steps that the encoder can take to enhance the decoder's ability to recover gracefully from a transmission error. Exemplary steps that can be taken by the encoder include intra walk around and sending GOB headers. Although these encoder techniques can provide greatly enhanced results, they are not strictly necessary to the system described herein.

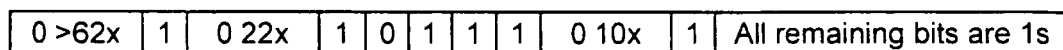


Fig. 1

EPO FORM 1503 03.82 (P04C01) 5



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EUROPEAN SEARCH REPORT

Application Number
EP 05 01 8039

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	QINGWEN LIU ET AL: "Combining adaptive modulation and coding with truncated ARQ enhances throughput" SIGNAL PROCESSING ADVANCES IN WIRELESS COMMUNICATIONS, 2003. SPAWC 2003. 4TH IEEE WORKSHOP ON ROME, ITALY 15-18 JUNE 2003, PISCATAWAY, NJ, USA, IEEE, US, 15 June 2003 (2003-06-15), pages 110-114, XP010713387 ISBN: 0-7803-7858-X * page 111 *	11	
Y	FRANK H P FITZEK ET AL: "Comparison of Multi-Code Link-Layer Transmission Strategies in 3Gwireless CDMA" October 2000 (2000-10), IEEE COMMUNICATIONS MAGAZINE, IEEE SERVICE CENTER, PISCATAWAY, US, PAGE(S) 58-64 , XP011091360 ISSN: 0163-6804 * page 59 *	11	
Y	FANG-CHEN CHENG ET AL: "Wireless Intelligent ATM Network and Protocol Design for Future Personal Communication Systems" September 1997 (1997-09), IEEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS, IEEE SERVICE CENTER, PISCATAWAY, US , XP011054684 ISSN: 0733-8716 * page 1295 * * page 1299; figure 10 *	11	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
5	Place of search Munich	Date of completion of the search 22 September 2006	Examiner Moschetti, Fulvio
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

EPO FORM 1503 03.82 (P04C01)

**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- ☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:



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LACK OF UNITY OF INVENTION
SHEET B

Application Number

EP 05 01 8039

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-9,13

The alleged invention of claims 1-9,13 relates to a method and apparatus for video decoding comprising a resynchronization when the error is detected.

2. claims: 10-12,14

The alleged invention of claims 10-12,14 relates to a method and apparatus for video decoding comprising the stop of the update of a reference frame when the error is detected.

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 05 01 8039

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

22-09-2006

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